

What is Claimed is:

- Sub 91 >
1. A terminal for use with a socket, the terminal comprising:
- a pin engaging portion having a pair of contact arms which are positioned to make electrical engagement with a mating pin;
- 5 a retention portion extending from the pin engaging portion, side edges of the retention portion are dimensioned to create a frictional interference with side wall of a cavity of the socket;
- a mounting portion extending from the retention portion in an opposite direction from the pin engaging portion, the mounting portion having at least one resilient leg which extends from the retention portion to a solder pad which is soldered to a substrate;
- 10 whereby the solder pad is spaced from the retention portion a sufficient distance to allow the at least one resilient leg to provide the resilient characteristics required to allow the at least one resilient leg to resiliently compensate for misalignment or movement of the solder relative to the solder pad.
- 15 2. The terminal as recited in claim 1 wherein the pair of contact arms are nonsymmetrical, a first contact arm of the pair of contact arms is configured to have a longer electrical path across which signals are transmitted than a second contact arm.
3. The terminal as recited in claim 2 wherein a bight integrally connects the first and second arms together, a centerline of the bight portion is offset from a centerline of the terminal.
- 20 4. The terminal as recited in claim 3 wherein the first contact arm has a reduced thickness compared to the second contact arm, whereby the first contact arm is configured to have a matched inductance to the second contact arm.

5. The terminal as recited in claim 1 wherein the retention portion is positioned proximate the pin engaging portion, a neck member integrally attaches the bight to the retention portion, the neck member providing the flexibility required between the retention portion and the bight to allow the pin engaging portion to move relative to the retention portion to compensate for respective mating pins which are slightly misaligned.

6. The terminal as recited in claim 1 wherein the mounting portion has two resilient legs which extend from the retention portion.

7. The terminal as recited in claim 6 wherein the two resilient legs are separated by an opening, the opening extending from proximate the retention portion to a bridge which extends between the two resilient legs.

8. The terminal as recited in claim 1 wherein the at least one resilient leg has a positioning member extending therefrom at a distance spaced from the retention portion, the positioning member cooperates with a recess provided in the socket and is loosely retained therein to allow for movement of the at least one resilient leg relative to the retention portion.

9. The terminal as recited in claim 8 wherein the positioning member is positioned proximate the solder pad such that the lateral movement of the solder pad will be controlled.

10. The terminal as recited in claim 1 wherein the contact arms have a reduced material thickness in high stress areas to increase the compliancy of the contact arms and reduce the spring rate.

11. A terminal for use with a socket, the terminal comprising:
a pin engaging portion having a pair of nonsymmetrical contact arms which are positioned to make electrical engagement with a mating pin, a first contact arm of the pair of contact arms is configured to have a longer electrical path across which signals are transmitted

than a second contact arm, the first contact arm has a reduced thickness compared to the second contact arm, whereby the first contact arm is configured to have a matched inductance to the second contact arm.

a retention portion extending from the pin engaging portion, side edges of the retention portion are dimensioned to create a frictional interference with side wall of a cavity of the socket;

a mounting portion extending from the retention portion in an opposite direction from the pin engaging portion, the mounting portion having a solder pad which for soldering to a substrate.

12. The terminal as recited in claim 11 wherein a bight integrally connects the first and second arms together, a centerline of the bight portion is offset from a centerline of the terminal.

13. The terminal as recited in claim 11 wherein the retention portion is positioned proximate the pin engaging portion, a neck member integrally attaches the pin engaging portion to the retention portion, the neck member providing the flexibility required between the retention portion and the pin engaging portion to allow the pin engaging portion to move relative to the retention portion to compensate for respective mating pins which are slightly misaligned.

14. The terminal as recited in claim 11 wherein the mounting portion has two resilient legs which extend from the retention portion.

15. The terminal as recited in claim 14 wherein the two resilient legs are separated by an opening, the opening extending from proximate the retention portion to a bridge which extends between the two resilient legs.

16. The terminal as recited in claim 15 wherein the two resilient legs have positioning members extending therefrom at a distance spaced from the retention portion, the positioning members cooperate with a recesses provided in the socket and are loosely retained therein to allow for movement of the two resilient legs relative to the retention portion.

5 17. The terminal as recited in claim 16 wherein the positioning members are positioned proximate the solder pad such that the lateral movement of the solder pad will be controlled.

18. The terminal as recited in claim 11 wherein the solder pad is spaced from the retention portion a sufficient distance to allow the at least one resilient leg to provide the resilient characteristics required to allow the at least one resilient leg to resiliently compensate for misalignment or movement of the solder relative to the solder pad.

19. The terminal as recited in claim 11 wherein the contact arms have a reduced material thickness in high stress areas to increase the compliancy of the contact arms and reduce the spring rate.